

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP 2003/000953

## A. CLASSIFICATION OF SUBJECT MATTER

IPC7: B01D 21/18, B01D 21/04

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: B01D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WPI DATA, EPO-INTERNAL, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 1763412 A (M.B. TARK), 10 June 1930 (10.06.1930), page 1, line 28 - line 33; page 2, line 85 - line 103; page 3, line 112 - line 116, figures 2,6-8 --	1-4
A	US 2028094 A (S. SHAFER, JR), 14 January 1936 (14.01.1936), page 1, column 1, line 28 - line 43; page 1, column 2, line 40 - page 2, column 1, line 27, figures 1-4 --	1-4

☒ Further documents are listed in the continuation of Box C.☒ See patent family annex.

\* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

13 April 2004

Date of mailing of the international search report

15-04-2004

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## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>PATENT ABSTRACTS OF JAPAN vol.013, no. 367, 15 August 1989 (1989-08-15) &amp; JP 11 23609 A (HITACHI METALS LTD), 16 May 1989 (1989-05-16) figure 1-3, abstract</p> <p>-- -----</p>	1-4

**INTERNATIONAL SEARCH REPORT**  
Information on patent family members

27/02/2004

International application No.

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US	1763412	A	10/06/1930	NONE
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US	2028094	A	14/01/1936	NONE
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